

SYNOPSIS OF THE NEOTROPICAL COCKROACHES OF THE
GENUS NESOMYLACRIS

(DICTYOPTERA: BLATTARIA: BLATTELLIDAE)

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ABSTRACT—*Nesomylacris* is a genus of small, short-winged, flightless cockroaches, now including the following 6 species: *cupensis* Rehn & Hebard and *fratercula* Rehn (Cuba); *relica* R. & H. and *derelicta*, n. sp. (Jamaica); *asteria*, n. sp. (Costa Rica); and *reddelli*, n. sp. (Tamaulipas, Mexico). So far as known, they inhabit ground litter primarily; some specimens of *reddelli* have been taken in a cave. Distinctive areas presumed to be of a glandular nature on the dorsum of the male abdomen occur in several species. The phallomeres of the male genitalia and exposed external characters of male genital segments distinguish the species, in addition to more general characters which serve in most cases.

As previously described, the genus *Nesomylacris* Rehn & Hebard consists of three species, two from Cuba and one from Jamaica (Rehn & Hebard, 1927; Rehn, 1930; Princis, 1969). We now describe three additional species, one each from Jamaica, Costa Rica and Mexico, thus broadening the distribution of the genus, also modifying the characters which define it. The generic description given by Rehn & Hebard (1927) must be changed as follows: 1. The apical male terga are sometimes specialized; we describe specialization in three species, including the type species, and closer study may eventually disclose it in other species, though it is unknown for them now. 2. The group of apical spines on the ventro-anterior margin of the front femur includes three spines, the basal one of which sometimes is only a little longer than the adjacent spine of the main series. Rehn and Hebard keyed out *Nesomylacris* as having three spines in the apical group, but in the generic description said ". . . two larger spines." 3. Pulvilli are small and apical, usually on tarsal segments 1-4, rarely (*reddelli*, n. sp. from Mexico, only) on penultimate segment only.

Other characters in the original 1927 description remain unchanged. The abbreviated overlapping or attingent tegmina in both sexes give adults of *Nesomylacris* a superficial resemblance to adults of the Neotropical genera *Lobodromia* and *Nelipophygyus*, but the latter two genera both have the ventro-anterior margin of the front femur with

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Type B spination (long spines in basal half, succeeded in apical half by abruptly shorter, closely set, more delicate spines); *Nesomylacris* has Type A (spines on that margin of one series, of gradually decreasing length).

Type-species of genus—*Nesomylacris relica* R. & H., by original designation.

Following the key to species, four of the species are treated in detail, but the two Cuban species are not discussed because we have no new information regarding them.

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KEY TO THE SPECIES OF *Nesomylacris*

1. Tegmina trigonal in shape, attingent only at the base, with their apices lateral, reaching only to the metanotum and exposing portions of the mesonotum and the lobiform sliplike wings (Rehn & Hebard, 1927, pl. 11, fig. 1); general color of pronotum, tegmina, mesonotum, metanotum and first abdominal tergum dark orange, contrasting with deep grey-brown of other terga; lateral margins of terga often pale spotted, the latter sometimes coalesced to form longitudinal band. (CUBA) *cubensis* Rehn & Hebard
- Tegmina quadrate or subquadrate, with their entire mesal margins attingent or slightly overlapping, reaching to the abdomen and covering mesonotum and wings in both sexes; general color of pronotum and, usually, the tegmina similar to central portions of abdominal terga; lateral margins of terga variable in color 2
2. Size small, male 7–8 mm, female unknown; highly contrasting color pattern, disc of pronotum and central areas of terga deep greyish brown, contrasting with head, wide lateral and anterior margins of pronotum, entire tegmina, and wide margins of abdominal terga and sterna of yellowish buff. (Rehn, 1930: Pl. 1, fig. 4; pl. 5, fig. 1). (CUBA) *fratercula* Rehn
- Size larger, 9 mm or more for males, females larger; color pattern not highly contrasting, tegmina, pronotum and terga with same base color, though patterns of paler markings may occur, without broad conspicuous pale abdominal margins 3
3. Male supra-anal plate transverse, without visible specialization in pinned specimens, but when cleared a median emargination evident at base (fig. 16, *em*), in female broadly trigonal with sides convex, apex weakly or not at all emarginate; right male stylus very long and acuminate, often hidden by margin of subgenital plate (fig. 15). (COST RICA) *asteria*, n. sp.

- Male supra-anal plate broadly trigonal with convex sides, specialized or not, in female sharply trigonal with sides straight or convex, and apex notched; male styli subequal in size, or left one much larger than right one 4
4. Male supra-anal plate highly specialized with raised central area and deep pits (fig. 23); male styli subequal (fig. 22); pulvillus only on penultimate (normally 4th) tarsal segment; eyes somewhat reduced, interocular distance clearly exceeding interantennal distance (between scrobes); female with ocellar spots not visible; unicolorous buff or brownish red species. (Tamaulipas, MEXICO) *reddelli*, n. sp.
- Male supra-anal plate specialized or not; male styli very unequal; pulvillus on tarsal segments 1-4; interocular distance subequal to interantennal distance; ocellar spots evident; deep reddish brown species, often with pattern of conspicuous paler color. (JAMAICA) 5
5. Male supra-anal plate with basal depression, bearing tuft of specialized setae, combined with similar setae on posterior margin of tergum 9 (latter usually hidden by overlapping terga 7 and 8 (figs. 1, 3); right stylus minute, left stylus with pronounced basally directed spicules (fig. 4); entire face deep mahogany, making it appear broader than in *derelicta*; abdomen often with pale dorsal spots near lateral margins, costal and posterior margins of tegmina usually conspicuously pale *relica* Rehn & Hebard
- Male supra-anal plate unspecialized; right stylus small, but larger than in *relica*; face usually not uniformly mahogany, so that it appears narrower than above; abdomen without pale spots, and tegmina usually of more uniform color. *derelicta*, n. sp.

***Nesomylacris relicha* Rehn and Hebard 1927**

(Figs. 1-6)

The specialization of the male supra-anal plate is relatively inconspicuous in general view (fig. 1) and was not mentioned by Rehn & Hebard (1927). When examined in detail (fig. 3), the specialized slender apically curved setae on terga 9 and 10, those on the latter associated with a shallow circular depression, are obviously related to a glandular function. The holotype is so specialized. The male from near Corn Puss Gap has few specialized hairs, and some may have been rubbed off; the depression is distinctly formed. Between the styli of the subgenital plate is a small flap borne by the dorsal surface of the posterior margin (fig. 4). The left paraproct is long, blunt, clublike; the right one also is elongate, but is more slender, and, when seen from some directions, sharply acute (fig. 5). The phallomeres include a membrane which bears elongate spines on a somewhat triangular sclerotized plate (fig. 6, *sp.*), another sclerite (*sc*) occurs near the L2d.

Tegminal and pronotal measurements of our series from Hardwar Gap and Catherine's Peak compare well with those given by Rehn & Hebard (1927: 143), but our specimens are longer (males, 11.2-12.1 mm; females, 13.7-14.3 mm); our specimens were degreased following

preservation in alcohol, and probably had less shrinkage than those reported in 1927.

Specimens collected by Gurney in 1966 (see records below) were all taken in leaf litter on the ground, in mountain forest, many in jars sunk flush with the ground level in such areas and baited overnight with molasses.

The following material has not been recorded previously: JAMAICA. Along path to Corn Puss Gap (ca. 1.7 mi. n. May Hall, or 3.8 mi. n. Bath), from south, St. Thomas Parish, May 20, 1969 (T. J. Walker) 1 male, 4 nymphs; near Hardwar Gap, St. Andrew Parish, along path opposite driveway to Holleywell Cabin #1, from funnel of leaf litter, June 16, 1970 (T. J. Walker) 1 male; Hardwar Gap, St. Andrew Parish, Ducks Pond Trail, July 25, 1962 (Farr, O. & R. Flint) 1 male, 4 females; Hardwar Gap, Portland Parish, 13-XI-1966 (Gurney) 2 males, 3 females; Green Hills, Portland Parish, 13-XI-1966 (Gurney) 2 males, 4 females; Catherine's Peak, near Newcastle, St. Andrew Parish, 4600-5000 ft., 16-XI-1966 (Gurney) 9 females.

***Nesomylaeris derelicta*, n. sp.**

(Figs. 7-11)

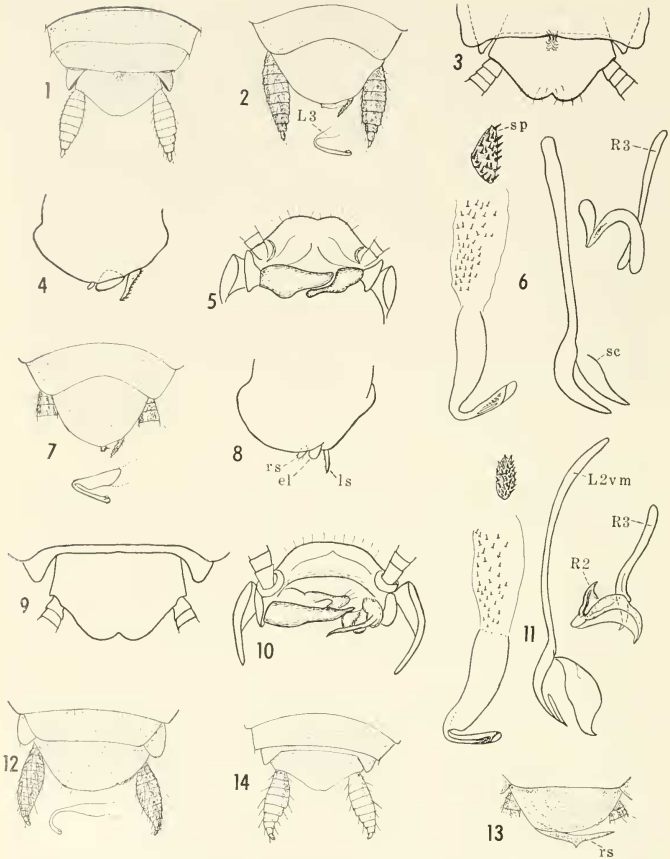
Male (holotype).—Size, 12.0 mm; form flattened, elliptical, widest across tegmina; wing slips covered by tegmina; body surface smooth; base color a deep reddish brown with no conspicuous color markings; legs and thoracic sterna tan.

Head barely visible from above, pyriform; maximum width subequal to depth; eyes widely separated and deeply emarginate, interocular distance equal to distance between antennal scrobes; ocellar spots conspicuous, dorsomedial to antennal scrobes but touching them; maxillary palp with basal segments moderately slender ultimate (5th) segment stout, spatulate with medial margin concave; 3rd and 5th segments of latter of subequal length, 4th segment $\frac{3}{4}$ th length of either; antennae exceed body length.

Pronotum semi-circular in outline, with posterior margin slightly convex, latero-posterior angles and anterior portion broadly rounded; in transverse section pronotum broadly arched, more convex anteriorly where head fits beneath it; tegmina quadrate with lateral and medial margins slightly convex, posterior margins truncate, reaching 2nd abdominal tergum, latero- and medio-posterior angles rounded, venation obsolete; wings reduced to lobiform, articulate pads.

Abdomen broad, flattened dorsally, unspecialized; tergum 1 narrow, convex behind, nearly hidden by tegmina, with blunt median longitudinal carina; terga 8 and 9 covered by tergum 7 except for lateroposterior angles; posterior margin of tergum 7 somewhat concave; supra-anal plate (fig. 9) trigonal, with sides nearly straight and apex bilobate, lobes broad and shallow, but distinct. Cerci stout, fusiform spindle-shaped, relatively flat, smooth dorsally, rounded and setigerous ventrally.

Subgenital plate in transverse section strongly arched, ventral view as in fig. 8; conspicuous left stylus bearing only few spicules such as described for *N. relicta*; margin between styli extended into an unpigmented elliptical lip; interstylar distance short, less than length of left stylus. Left paraproct not as broadly clublike



Figs. 1-6, *Nesomyiactris relicata* R. & H., based on males from Hardwar Gap: 1, terminal abdominal segments, dorsal view; 2, same, ventral view; 3, supra-anal plate and terga 8 and 9, dorsal view; 4, subgenital plate, ventral view; 5, paraprocts and associated structures, ventroposterior view; 6, phallomeres, dorsal view. Figs. 7-11, *N. derelicta*, n. sp., based on male paratypes from Catherine's Peak: 7, terminal abdominal segments, ventral view; 8, subgenital plate, ventral view; 9, supra-anal plate, dorsal view; 10, paraprocts and associated structures, ventroposterior view; 11, phallomeres, dorsal view. Figs. 12-14, *N. asteria*, n. sp., based on male holotype: 12, terminal abdominal segments, ventral view, right stylus partially extended; 13, subgenital plate, ventral view; 14, terminal abdominal segments, dorsal view. (Figs. 3-6, 8-11, KOH preparations.) Abbreviations: el, elliptical

in apical third as in *relica*, right paraproct with apical half much narrower at base than in *relica*; phallomeres as in fig. 11, membranous section bearing minute spines adjacent to sclerotized elongate-elliptical plate bearing strong spines of shorter length than in *relica*.

Coloration: Base coloration reddish brown on head, pronotum, tegmina and abdomen, shading to lighter brown on posterior and lateral margins of pronotum and tegmina; disc of pronotum has poorly defined median longitudinal pale mark that matches margins in color; 1st tergum of abdomen has narrow posterior margin of same color, also median spot near apex of supra-anal plate and dorsal surfaces of cerci. Head appears narrower than in *relica*, primarily because lateral and ventral margins of frons are suffused with buff; only narrow central portion is dark reddish brown. Legs and thoracic sterna tan with much darker mahogany patches on proximal anterior portions of coxae, largest on meso- and metacoxae.

Female (allotype).—Size, 12.5 mm; form broader than holotype, otherwise same. Detailed morphology also agrees with type male except as follows: Supra-anal plate more triangular in apical half, narrowly bilobed at apex; subgenital plate broad, symmetrical. Coloration likewise nearly identical to male; supra-anal plate has median longitudinal pale line, also weakly indicated on tergum 8.

Measurements.—4 males and 4 females (in mm): body length, ♂ 11.0–12.0, ♀ 11.8–13.5; pronotal length, ♂ 3.1–3.5, ♀ 3.4–4.1; pronotal width, ♂ 3.6–4.4, ♀ 4.8–5.0; tegmen length, ♂ 2.8–3.0, ♀ 3.3–3.7; tegmen width, ♂ 2.9–3.1, ♀ 3.3–3.5; width across both tegmina, ♂ 4.9–5.4, ♀ 6.0–6.3; hind tibial length, ♂ 4.1–4.6, ♀ 4.7–4.9.

Specimens of *Nesomylacris derelicta* examined: (8: 4 males, 4 females). JAMAICA. Catherine's Peak, St. Andrew Parish, 4600–5000 ft., 16–XI–1966 (Gurney), 2 males, 4 females (Holotype, Allotype, Paratypes) (Holotype, U.S.N.M. No. 71499); Hardwar Gap, St. Andrew Parish, 13–XI–1966 (Gurney), 2 males (Paratypes).

The name *derelicta* is a Latin word meaning neglected or disregarded. The species was found in the same habitat as *relica* and apparently both species occur together, but in the field it was not realized that two species were present, and possibly additional observations would show that there are somewhat different ecological preferences.

Nesomylacris asteria, n. sp.

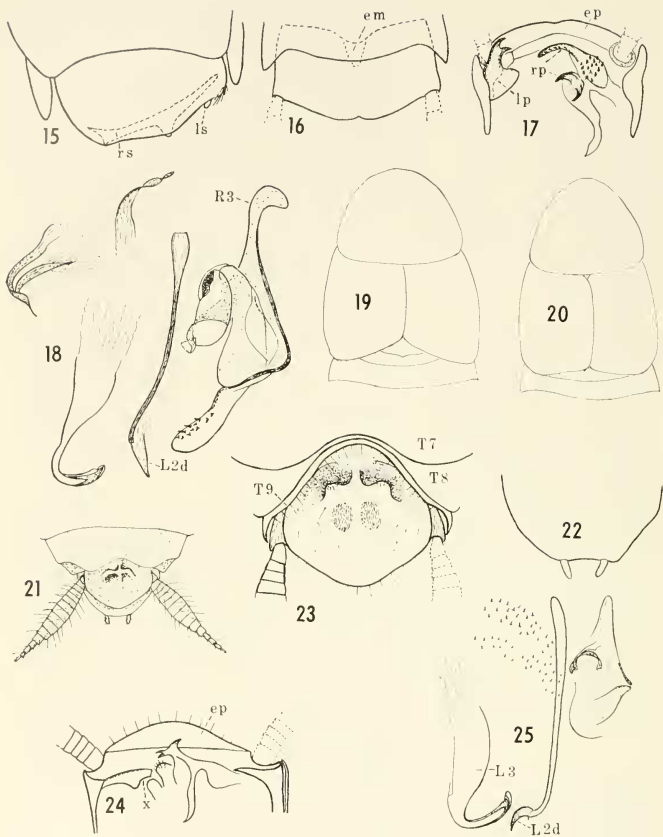
(Figs. 12–18)

Male (holotype). Size, 13.0 mm, general form moderately broad, brachypterous, shining dark reddish brown.

Head narrowly triangular, glossy smooth; interocular space wide, subequal to interocellar space; eyes comma-shaped, broad dorsad, greatly narrowed ventrad to accommodate antennal scrobes; ocellar spots conspicuous, pale; maxillary palpi slender, ultimate (fifth) segment subequal to third or one and one-third times fourth.

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lip; L2vm, elongate sclerite of median phallomere; L3, third sclerite of left phallomere; rs, right stylus; R2, second sclerite of right phallomere; R3, third sclerite of right phallomere; sc, sclerite associated with terminal sclerite of median phallomere (L2d); sp, sclerotized plate near L3.



Figs. 15-18, *Nesomyllacris asteria*, n. sp., based on male holotype: 15, subgenital plate and associated structures, ventral view; 16, supra-anal plate and associated structures, dorsal view; 17, paraprocts and associated structures, ventroposterior view; 18, phallomeres, dorsal view. Figs. 19-25, *N. reddelli*, n. sp., based on female paratype (19) and male holotype (20-25): 19, pronotum, tegmina, abdominal terga 1-2, dorsal view, female; 20, same, male; 21, terminal abdominal segments, dorsal view; 22, subgenital plate, ventral view; 23, supra-anal plate and associated structures, dorsal view; 24, paraprocts and associated structures, ventroposterior view; 25, phallomeres, dorsal view. (Figs. 15-18, 22-25, KOH preparations). Abbreviations: em, median basal emargination; ep, epiproct (supra-anal plate); lp, left paraproct; ls, left stylus; L2d, terminal sclerite of median phallomere; L3,

Pronotum arched in transverse section, ventrally curved laterad, posterior margin nearly straight, latero-posterior angles broadly rounded, head barely visible from above; tegmina subquadrate, posterior margins reach to base of tergum 1, marginal fields distinct in position and color, flared out horizontally, not curved like remainder of tegmina; wing slips clearly defined, articulate, failing to reach posterior margin of metanotum; latter margin transverse, entire except for minute median posterior projection.

Abdomen broad, flattened dorsad, no specialization evident in general view (see below); posterior margin of tergum 1 decidedly convex, the following terga less so; 7th and 8th terga very slightly convex, nearly straight transverse; tergum 8 nearly concealed by tergum 7; caudo-lateral angles of terga 7 and 8 blunt. Supra-anal plate (fig. 16) transverse, caudally directed apex very shallowly but distinctly emarginate; KOH preparation reveals specialized emargination at base of supra-anal plate. Cerci broad, somewhat compressed dorso-ventrally. Subgenital plate (figs. 12, 13, 15) asymmetrical, sides of plate both broadly curved; right side more evenly rounded. Right stylus long, slender, hidden; left stylus reduced to obscure, minute peg; acuminate right stylus has acute, caudally directed projection about midpoint in its length, usually hidden from behind and below by recurved posterior margin of subgenital plate; along latter margin, laterad of base of left stylus, is dense row of slender, medio-posteriorly projecting spinelike setae collectively resembling a fringe. Right paraproct with platelike base, marginally spined mesally, with a spined knob laterally, mesoventrally a separate sclerite bearing 2 short hooks; left paraproct with short base, 2 hooks (fig. 17); phallomeres as in fig. 18; L2d pale, triangular, weakly sclerotized; right phallomere with laterally curved anterior end (R3), a posterior section of membrane bearing 11 short spinelike spicules.

Front femur with 5 spaced spines on ventro-posterior margin; front tibia slightly shorter than tarsus; mid- and hind tibiae increasingly slender, hind tibia much longer than tarsus; tarsi each with arolium and 4 small pulvilli; tarsal claws symmetrical, unspecialized.

Coloration: Head dark reddish brown, like disc of pronotum, tegmina and abdomen; compound eyes nearly black; ocellar spots and antennal scrobes very pale, nearly white; pale brownish orange bar above labrum; spots surrounding anterior tentorial pits very dark, nearly black; palpi mostly pale grey, surfaces of ultimate and penultimate segments light brown. Pronotum dark reddish brown except for lateral margins which shade into brownish orange; tegmina dark like pronotum except for brownish orange, broad marginal fields; dark apical spot on each wing slip hidden by tegmen. Abdominal terga dark reddish brown except for caudo-lateral angles of terga 5 to 8, which are brownish yellow; supra-anal plate with same base color, but apical triangular area much lighter, nearly transparent. Cerci with same base color, distal segments pale. All abdominal sterna and subgenital plate also dark reddish brown, except for nearly transparent broad transverse recurved distal band on latter. Legs and tarsi brownish yellow; coxae yellowish white with poorly defined dark brown spots covering basal fourth of each.

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third sclerite of left phallomere; rp, right paraproct; rs, right stylus; R3, third sclerite of right phallomere; T7, T8, T9, terga 7, 8, 9, respectively; x, left paraproct with apex apparently lost by breakage.

Female (allotype). Morphology and coloration as in male type, except as follows: Tegmina slightly longer, extend beyond tergum 1; supra-anal plate trigonal, not transverse, apex broadly rounded, not emarginate, plate has median raised area, entire plate dark reddish brown; subgenital plate deeply pouched, nearly hemispherical in shape, its dorsal margin semicircular.

Measurements, 3 males and 1 female (in mm): body length, ♂ 13.0–13.5, ♀ 13.5; pronotal length, ♂ 3.5–3.6, ♀ 3.7; pronotal width, ♂ 4.6–4.8, ♀ 5.2; tegmen length, ♂ 3.0–3.3, ♀ 3.5; width across both tegmina, ♂ 5.7, ♀ 6.2; hind tibial length, ♂ 4.2–4.5, ♀ 4.5.

Specimens of *Nesomylacris asteria* examined: (4: 3 males, 1 female) COSTA RICA. 13 km. n.w. Turrialba, 0.7 km. n.w. Santa Cruz, Cartago Prov., Oct. 1, 1961 (Hubbell, Cantrall & Cohn), 1 female (Allotype) (University of Michigan Mus. of Zoology); Turrialba, Cartago Prov., Sept. 30, 1961 (Hubbell, Cantrall & Cohn), 1 male (University of Michigan Mus. of Zoology); Barba, Heredia Prov., July 17, 1966 (F. W. Fisk) 1 male (Holotype) (U.S.N.M. No. 71500); Zarcero, Alajuela Prov., July 30, 1966 (F. W. Fisk) 1 male (Paratype) (Ohio State University).

The name *asteria* is a Latin word meaning "precious stone"; because it is a noun, it would not require a change if ever transferred to a masculine genus.

***Nesomylacris reddelli*, n. sp.**

(Figs. 19–25)

Male (holotype).—Size, 13.0 mm; form flattened, elliptical, brachypterous; body surface smooth, pale buff color; antennae and legs relatively long and slender.

Head not visible from above, completely hidden by pronotum in resting position, pyriform in shape, maximum width about $\frac{1}{4}$ th depth; eyes small for genus, widely separate, deeply emarginate, interocular distance exceeds interantennal distance by ratio of 11:9; ocellar spots small but evident; maxillary palpi slender, ultimate (5th) segment very little expanded, slightly longer than either 3rd or 4th segments, which are subequal; antennae greatly exceed body length.

Pronotum (fig. 20) semi-circular in outline, posterior margin nearly straight, other margins broadly rounded; in transverse section pronotum broadly arched; anteriorly, where head fits, it is convex, hoodlike; tegmina quadrate, reaching tergum 2, with lateral and medial margins slightly convex, posterior margins truncate, latero and medioposterior angles rounded, venation obsolete; wings reduced to lobiform pads, completely covered by tegmina.

Abdomen broad, flattened dorsally, specialized; tergum 1 narrow, convex behind, largely hidden by tegmina; terga 2 and 3 less convex posteriorly, those that follow with straight transverse margins; except for lateroposterior angles, terga 8 and 9 hidden by tergum 7; posterior margin of tergum 7 bilobed, rounded apices of lobes each at midpoint between median line and lateral margin, lobes thickened, appear softer than surrounding cuticle.

Supra-anal plate (figs. 21, 23) roughly diamond shaped with lateral angles (near cercal bases) rather sharply rounded and anterior and posterior angles broadly rounded; beginning near anterior margin is a median longitudinal ridge (flanked by pair of large shallow pits) which extends posteriorly about $\frac{1}{4}$ th distance to

posterior apex where it bifurcates sharply into pair of short transverse ridges which then curve posteriorly in lateroposterior direction and merge with surface of the plate. These paired ridges heavily pigmented and sclerotized on their sharp edges appear like inverted basal portion of a shield, anterior edges overhang large pits referred to earlier; between paired ridges median ridge continues posteriorly, flanked by pair of small shallow pits; median ridge, both anterior and posterior to bifurcation, blunt and without special pigmentation; whole specialization occupies proximal half of supra-anal plate.

Cerci slender, approximately $\frac{7}{8}$ th length of tegmina; contrasting with other members of genus, where cerci are about half tegminal length. Subgenital plate simple, symmetrical, briefly truncate apically between styli (fig. 21); styli simple, subequal in size and shape; interstyler distance twice length of stylus.

Right paraproct complex, with 3 sharp apical hooks, a fleshy lobe bearing slender marginal spines dorsad of hooks; left paraproct simpler, somewhat swollen at mid-length (may be broken basad of apex in preparation, fig. 24, x). Phallomeres as in fig. 25; hook (L3) of left phallomere with cleft near apex; L2d strongly sclerotized, crescent-shaped, sharply acute; membrane bearing both tiny and medium-sized spiniform spicules, no plate bearing large spines.

Coloration: Pale buff throughout except for white ocellar spots, nearly black bifurcate ridge on supra-anal plate, and some poorly defined suffusions of darker tan on tegmina and abdominal terga. Pale coloration may reflect an adaptation for cave life.

Female (allotype).—Size, 15.0 mm; larger than holotype, reddish tan, otherwise very similar.

Eyes widely separated, small, interocular distance exceeds interantennal distance by 3:2, median margins of eyes centered just above antennal scrobes; total eye length little greater than apical segment of maxillary palpus; ocellar spots not evident. Tegmina (fig. 19 from paratype female) subtrigonal, rounded lateroposterior angles reach tergum 2, posterior margins oblique so that medio-posterior (sutural) angles expose tergum 1 and part of metanotum; sutural margins nearly straight, lateral margins broadly curved; metanotum convex behind, with median posterior projection. Wings articulate, completely covered by tegmina.

Tergum 1 narrow, convex behind; terga 2 to 7 wide, transverse; terga 8 and 9 hidden; supra-anal plate broadly trigonal, sides straight with slight notch at apex marking distal end of weakly elevated median carina; cerci slender as in male; subgenital plate broadly curved, symmetrical. Legs as in holotype, a single pulvillus on penultimate segment of each tarsus.

Basic coloration reddish tan, uniform on nearly entire insect; darker than holotype; clypeus, palpi and tip of labrum somewhat paler; median carina of supra-anal plate marked by pale buff line.

Measurements, 1 male and 3 females (in mm): body length, ♂ 13.0, ♀ 15.3–16.0; pronotal length, ♂ 4.1, ♀ 4.8–5.3; pronotal width, ♂ 5.5, ♀ 6.4–7.0; tegmen length, ♂ 3.4, ♀ 4.3–4.8; width across both tegmina, ♂ 6.4, ♀ 7.8–8.5; hind tibial length, ♂ 5.8, ♀ 6.2–7.0. In addition there are 4 nymphs measuring 11.5, 11.5, 16.5 and 17.0 mm in length respectively.

Specimens of *Nesomylacris reddelli* examined: (8: 1 male, 3 females, 4 nymphs). MEXICO, Tamaulipas: 4 mi. S.W. Cd. Victoria, 1200 ft., Aug. 5, 1963, (Duckworth & Davis), 3 females (1 preserved

as allotype, 2 others accidentally destroyed following study, except for tegmina); Cueva de El Pachon, 12 mi. s.w. Mante, among rocks near cave entrance, June 8, 1967, (James R. Reddell) 1 male, holotype (broken after study, only apical part of abdomen and tegmina preserved, U.S.N.M. Type 71501; 1 nymph); Cueva de El Pachon, June 22, 1971 (F. W. Fisk) 3 nymphs.

The above two localities are in southern Tamaulipas, separated by about 60 miles. Drs. W. D. Duckworth and D. R. Davis did not collect in caves, and their specimens were apparently associated with ground litter. The 1971 collections from Cueva de El Pachon were definitely from within the cave in the guano-covered, dimly lighted zone under flat rocks, presumably the same habitat noted earlier by Reddell. They were very scarce in this cave and could not be found in 7 other caves within a 40 mile range from El Pachon.

This distinctive species is named in honor of Dr. James R. Reddell in recognition of his diligent and productive efforts to enhance our knowledge of the United States and Mexican cave fauna.

Although *Nesomylacris reddelli* is not restricted entirely to cave habitats, based on the Victoria collection, it shows some indications of adaptation to cave living in the elongate legs and antennae, small eyes, and uniform pale coloration. Because of the presence of a pulvillus only on the 4th tarsal segment and the strikingly specialized male supra-anal plate, it is possible that future studies will show *reddelli* to warrant a different generic placement, but it agrees with most characters of typical *Nesomylacris* and we place it there provisionally.

REFERENCES

- PRINCIS, K. 1969. Orthopterorum Catalogus, Pars 13 (Blattellidae). pp. 713-1038.
- REHN, J. A. G. 1930. New or little known Neotropical Blattidae (Orthoptera). Number two. Trans. Amer. Ent. Soc. 56:19-71, 5 pls.
- and M. HEBARD. 1927. The Orthoptera of the West Indies. Number 1. Blattidae. Bull. Amer. Mus. Nat. Hist. 54, Art. 1, pp. 1-320, 25 pls.